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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Erik Dahlman

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EXAMINER

NGUYEN, HANH N

ART UNIT

PAPER NUMBER

2616

DATE MAILED: 10/18/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/825,353

Applicant(s)

DAHLMAN ET AL.

Examiner

Hanh Nguyen

Art Unit

2616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Response filed on 8/1/06.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-14 and 16-37 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-14 and 16-36 is/are rejected.
- 7) ☒ Claim(s) 37 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claims 1, 3-5, 8, 9, 10, 12, 13, 14, 16, 18-21, 24, 25, 26-28, 30, 31, 32, and 33-36 are rejected under 35 USC 102(e) as being anticipated by Soliman (US pat. 6,356,531 B1).

In claims 1, 8, 9, 12, 18-21, 24, 26-28, 30 and 33-36, Soliman discloses, in fig. 1, a CDMA system 9 (a cell) comprising a wideband shared frequency channel (a first type or a downlink shared channel; see col.1, lines 12-17 and col.4, lines 20-25); and overhead messages (represents a dedicated channel or a second type of channel) transmitted / received between a base station 4 and each of mobile devices 1A-1D; see col.4, lines 31-35. Refer to Abstract, an initial value of frequency reuse (a first frequency reuse) is provided to a mobile device. Based on the updated system load, a new frequency reuse value (a second type of frequency reuse) is

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provided to the mobile device; see fig.3, step 60; col.7, lines 20-30. The system 9 (see fig.3, step 66, and fig.4) is controlled by a control processor 478 (a controller). Since this is a CDMA system; therefore, there must be at least one CDMA channel associated with a frequency reuse value.

In claims 3, 4, 5, 16, 25, 31 and 32, the limitations of these claims have been addressed in claim 1 above.

In claim 13, Soliman discloses, in fig.1, that a system management center 5 is coupled to a base station 4 (a network controller is coupled to one base station). See col.4, lines 25-30.

In claims 10 and 14, as disclosed in the rejection of claim 1, Soliman discloses that the first channel is a shared channel (see col.1, lines 12-17). Therefore, this channel is not configured to use soft handoff. Soliman further discloses in col.4, lines 30-35 overhead messages communicated between base station 4 and mobile devices 1A-1D as indicated in fig.1.

Therefore, the overhead messages can be used as soft handoff messages between mobile devices and the base station 4.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 6, 7, 17 and 22 are rejected under 35 USC 103(a) as being unpatentable over Soliman (US pat. 6,356,531 B1).

In claims 6, 17 and 22, Soliman discloses different frequency values are assigned the mobile stations 1A-1D. Therefore, it would have been obvious that one frequency reuse value is greater than another frequency reuse value corresponding a respective mobile device. The motivation to have different frequency values is to reduce intercell interferences.

In claim 7, Soliman discloses that the initial frequency reuse value is 0.66 instead of the claimed frequency reuse value of 1. However, modifying the frequency reuse from 0.66 to 1 is well-known in the art. Therefore, it would have been obvious to one ordinary skilled in the art to modify the frequency reuse value in the system 9 of Soliman to 1 in order to perform a soft handoff when a mobile station desires and reduces intercell interferences.

Claims 11, 23 and 29 are rejected under 35 USC 103(a) as being unpatentable over Soliman (US pat. 6,356,531 B1) in view of Mujtaba (Us pat. 6,813,254 B1).

In claims 11, 23 and 29, Soliman does not discloses one of the first and the second channel is OFDM channel. Mujtaba discloses in fig. 11, that the using of OFDM downlink channel 102 (see col.6, lines 30-45). Therefore, it would have been obvious to one ordinary skilled in the art to use OFDM downlink or uplink channel in Soliman so that the first channel is CDMA channel and the second channel is an OFDM channel or vice versa.

Allowable Subject Matter

Claim 37 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

The reason for allowability of claim 37 was addressed in previous Action.

Response to Arguments

Applicant's arguments filed on 8/1/06 have been fully considered but they are not persuasive.

Applicant argues on page 4 that frequency reuse efficiencies in Soliman are not the same as different frequency reuses as used in application and does not indicate which frequencies are used in different cells. Examiner does not agree because the claims 1, 12, 24, 30 and 36 do not include frequencies are used in different cells. According to the CDMA system in Fig.1, an initial value of frequency reuse is allocated to mobile stations 1A-1D to periodically communicate with base station 4 during peak usage hours (a first frequency is associated with a channel). See col.4, lines 35-40. The initial Frequency reuse is updated to produce a new value of frequency reuse based upon the reduced number of mobile stations (a second frequency reuse) and col.3, lines 40-60.

According to Soliman in col.1, lines 15-20, which is pointed by Applicant, it is a typical CDMA system wherein a first frequency band (a first frequency) is used for forward channel (a first channel), while a second frequency band (a second frequency), different from the first frequency band, is used for reverse channel (a second channel). This cited paragraph is exactly what is claimed in claims 1, 12, 24, 30 and 36.

The base station and the mobile station have to communicate in different frequency bands because otherwise there will be interference.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hanh Nguyen whose telephone number is 571 272 3092. The examiner can normally be reached on Monday-Friday from 8:30 to 4:30. The examiner can also be reached on alternate

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ahmad Matar, can be reached on 571 272 7488. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Hanh Nguyen

 **HANH NGUYEN**
PRIMARY EXAMINER